

LOW-MAINTENANCE WATERMAKER

ABSTRACT OF THE DISCLOSURE

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A reverse osmosis system is subject to long periods of non-use in which water stands inside. A hollow-cylindrical spiral-wound type reverse osmosis membrane is disposed inside a cylindrical pressure vessel. An 10 electrostatic-field generator is disposed inside the pressure vessel. A high voltage direct current source powers the electrostatic-field generator and a voltage gradient is constantly produced inside the volume of the pressure vessel. Such gradients cut through the fabric 15 of the reverse osmosis membrane layers. The voltage to the electrostatic-field generator is kept on at all times, and prevents biofouling, even during lay-up periods. Current flow through the electrostatic-field generator is insignificant because it acts as a high-Z 20 capacitor.